

## Chapter 108

# Exploring Future Seamless Learning Research Strands for Massive Open Online Courses

**Inge de Waard**  
The Open University, UK

**Nilgun Ozdamar Keskin**  
Anadolu University, Turkey

**Apostolos Koutropoulos**  
University of Massachusetts, USA

### ABSTRACT

*This chapter reviews the concept of seamless learning for Massive Open Online Courses (MOOC) based on the distillation of key factors from papers discussing and describing the Mobile Seamless Learning (MSL) concept. The MSL concept was used as a starting point to explore how MOOC could be prepared for seamless learning and to explore future research options. There is a vast area of research to be explored related to seamless learning in MOOC. The authors believe that some of the challenges faced by MOOC, such as “dropout” rates, redefining learning activities to fit diversity of contexts, self-directed learning, collaborative content artifact creation, the mobility of the adult learners, and the “dip-in, jump-out” aspect of participation, can be countered by researching and suggesting seamless learning designs and guidelines that fit both the adult learners and the MOOC realities. Investigating all the elements, challenges and benefits for providing seamless learning in MOOC environments will contribute to the body of knowledge of contemporary online learning.*

### INTRODUCTION

The authors of this chapter have reviewed the concept of *seamless learning* for Massive Open Online Courses (MOOC) based on the distillation of key factors from papers discussing and

describing the mobile seamless learning (MSL) concept. The MSL concept was used as a starting point to explore how MOOC could be prepared or optimized for seamless learning.

Recent research has investigated the concept of ‘seamless learning’ with the aim of support-

DOI: 10.4018/978-1-4666-8789-9.ch108

ing a continuity of learning across contexts and devices (Sharples, 2013). Building on this notion of ‘seamless learning,’ a global research collaboration proposed a manifesto for research into learning for a world where every person has a networked personal computing device and can use it to learn across a variety of contexts (Chan et al., 2006). The Chan et al. (2006) manifesto was however mainly looking at mobile-based seamless learning. The authors of this chapter believe in the additional importance of creating seamless learning environments to optimize the learner experience for participants engaged in MOOC, and in online courses in general. The reason to transpose seamless learning not only to MOOC, but to online learning in general, is based on the belief that future technology enhanced learning will be ubiquitous, providing an optimal learning environment for the online learner. This optimal learning environment will allow the learner to swiftly move across their own learning environment with their preferred learning tool (mobile or not) and to comfortably find their way through all the learning activities as the learning environment adapts and logs the learner’s activities. Examples of such environments can be seen in the proposal for Academic Check-ins that leverage both formal and informal learning opportunities at the college campus (Koutropoulos, 2012).

The reason for investigating the existing insights and looking for research challenges is based on research gaps mentioned by our colleague researchers. A research gap was put forward by Looi, Seow, Zhang, So, Chen and Wong (2010) that there is a need to construct a seamless learning environment and to conduct longitudinal studies to explore the affordances of such learning environments in promoting 21<sup>st</sup> century knowledge, skills and positive attitudes towards learning. De Waard, Abajian, Gallagher, Hogue, Ozdamar Keskin, Koutropoulos and Rodriguez (2011a) add that the use of social media, new mobile technologies and MOOC have a major impact on the learning

and teaching processes of today, especially in MOOC. This rise of new educational forms has resulted in a quest for new learning methodologies and frameworks as written by McAuley, Stewart, Siemens and Cormier (2010), and the authors of this chapter feel that seamless learning will be a key influence on 21<sup>st</sup> century learning.

Combining mLearning and MOOC research, and building upon them follows from the fact that when looking at the learning related characteristics of both mLearning and MOOCs, similarities between the two fields start to emerge (de Waard, Koutropoulos, Keskin, Abajian, Hogue, Rodriguez, & Gallagher, 2011b); thus making them a match for future concurrent exploration and inquiry. Coming up with seamless learning for MOOC, based on learner-centered insights, will enhance many contemporary learners, as technology is now all around us, transforming each human being into an active, global participant who is enabled to learn or add to our collective knowledge.

With this chapter the authors want to share their views and ideas on seamless learning, as well as map out future seamless learning research for them, as well as colleague researchers. The authors want to explore what has been researched in the realm of mobile-based seamless learning, and broaden these to move towards MOOC seamless learning insights and research challenges as well as needs.

## **Converging and Opposing Definitions**

Although mobile learning and MOOC were developing on separate strands of research, and in different time periods, in today’s world of learning the two are coming closer together. However, both fields of research still have definitions relating to their key concepts and which go back to their roots of initial inquiry. For this chapter the authors base use the following definitions to make distinctions between the two areas. *mLearning* is defined in

13 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/exploring-future-seamless-learning-research-strands-for-massive-open-online-courses/139142](http://www.igi-global.com/chapter/exploring-future-seamless-learning-research-strands-for-massive-open-online-courses/139142)

## Related Content

---

### Dangers of Digital-Only Financial Inclusion

Peterson K. Ozili (2024). *Business Drivers in Promoting Digital Detoxification* (pp. 54-70).

[www.irma-international.org/chapter/dangers-of-digital-only-financial-inclusion/336742](http://www.irma-international.org/chapter/dangers-of-digital-only-financial-inclusion/336742)

### Supply Chain Social Sustainability and Manufacturing

Mani V, Rajat Agrawal, Vinay Sharmaand Kavitha T.N. (2018). *Technology Adoption and Social Issues: Concepts, Methodologies, Tools, and Applications* (pp. 226-252).

[www.irma-international.org/chapter/supply-chain-social-sustainability-and-manufacturing/196679](http://www.irma-international.org/chapter/supply-chain-social-sustainability-and-manufacturing/196679)

### The Unified Model for Acceptance and Use of Health Information on Online Social Networks: Evidence From Thailand

Waransanang Boontarig, Borworn Papasratornand Wichian Chutimaskul (2018). *Technology Adoption and Social Issues: Concepts, Methodologies, Tools, and Applications* (pp. 157-176).

[www.irma-international.org/chapter/the-unified-model-for-acceptance-and-use-of-health-information-on-online-social-networks/196676](http://www.irma-international.org/chapter/the-unified-model-for-acceptance-and-use-of-health-information-on-online-social-networks/196676)

### World of Warcraft: Screen Time and Identity Building

Diego Lourenço Sá Pintoand Cláudio Xavier (2019). *Managing Screen Time in an Online Society* (pp. 266-290).

[www.irma-international.org/chapter/world-of-warcraft/223062](http://www.irma-international.org/chapter/world-of-warcraft/223062)

### Framing Mobile Learning: Investigating the Framework for the Rationale Analysis of Mobile Education

Kim A. Hosler (2016). *Human-Computer Interaction: Concepts, Methodologies, Tools, and Applications* (pp. 380-395).

[www.irma-international.org/chapter/framing-mobile-learning/139045](http://www.irma-international.org/chapter/framing-mobile-learning/139045)